



Open Sea Cage Farming in HDPE & Cost effective GI cage



HDPE Cage

A promising venture which offers the fishers a chance for optimally utilizing the existing water resources.

The open sea cages are used for cultivating marine fishes with domestic and export orientation.

Make: High Density Poly Ethylene (HDPE). Dimensions: Diameter 6 m, Height 120 cm, Depth 6 m.

Candidate species grown in cages: Sea bass, Red snapper, Chanos, Mulllets, Cobia, Pompano, Groupers, Koi, Pomfrets, Lobsters etc.

Optimally maintains the size and quality of the marine fishes.

Eco-friendly system without any human intervention. Sustained survival rate of above 75%.

Great potential of expanding the scale of mariculture production.



Cost effective GI cage

Developed at Karwar with dimensions: Diameter 6 m, Height 120 cm, Depth 6 m, Total weight 700kg.

Make : Good quality 1.5" GI pipe (B Class). Joints double welded for extra strength. Structure provided with single coat epoxy primer & double coat epoxy grey paint to prevent rusting.

Additional floatation with fibre barrels of 200 litres filled with 30 lb air & inflated barrel provides stable platform for operations.

Outer net at 60 cm above water level prevents predatory fish entry to middle space.

Low Cost cage of Rs. 1 lakh including netting & mooring and a single crop can recover the investment of input cost.

Less Weight : 700 kg.

Can take the weight of 20-25 persons at a time on the platform safely for managerial operations.

As the size is same as HDPE cage, area wise both cages give the same performance.

Success in Finfish Breeding: Cobia and Pompano at CMFRI



Achieved breakthrough in Broodstock Development, Induced breeding and larval production of Cobia, (*Rachycentron canadum*) at Mandapam.

Collected Fishes weighing 10 kg & above in live condition from commercial catches and transported to hatchery.

The conditioned fishes are stocked and reared in cages with appropriate broodstock feeds.

Cannulation of the fishes done at regular intervals & males and females about to reach the spawning stage are isolated and stocked in separate cages.

When the ova diameter of the female reaches around 700 microns, the fish can be selected for inducing spawning. A ratio of 2 males: 1 female is ideal for spawning.

Induction of spawning is done by administering HCG at doses of 500 IU per kg body weight for females and 250 IU per kg body weight for male.

Successful spawning obtained within 48 hours. Eggs spawned 2.1 million. Fertilized eggs 1.9 million.

Collected the floating eggs by a 500 micron mesh and incubated in the incubation tanks.

The eggs hatch after 22 hours of incubation at a temperature range of 28 – 30°C. The newly hatched larvae (1.5 million) are stored in the larval storage tanks for marketing.

Silver Pompano, a high value marine tropical finfish due to its fast growth rate & high market demand is a potential mariculture giant which has vast domestic and global business prospects & CMFRI achieved the milestone of first successful broodstock development, induced breeding and larval production which is akin to highly priced Pomfret, popularly referred as American Pomfret.

As it is caught only sporadically in the commercial fishery, its natural availability in the sea is scarce & is a much sought after species whose demand can be met only through aquaculture.

Farming can be carried out in ponds, tanks and floating sea cages & is able to acclimatize and grow well even at a lower salinity of about 10 ppt & hence suited for farming in the vast low saline and brackish waters.

Success in breeding at CMFRI, Mandapam research Centre is a major step in the development of seed production technology.